IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of
Rieke

Serial No.: **10/619,280**
Filed: July 14, 2003

For: **System and Method of Processing Mixed-Phase Streams**

Docket No: **5952-007**
Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PATENT PENDING

Examiner: Anthony J Weier

Group Art Unit: 1761

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CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.8(a)]

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May 1, 2008
Date

Kathy L. McDermott

REMARKS SUPPORTING THE PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicants request the Patent Office to consider this pre-appeal brief which is being filed concurrently with a Notice of Appeal, appealing the rejection of all claims, that is claims 11-14 and 25-37. The claims stand rejected under §112, §102 and §103.

I. Claims 28, 29 and 33-37 Do Not Contain New Matter

The specification provides support for claim 28 on page 10, line 27 through page 11, line 9. Specifically, the specification states that the width of the spiral shaped element "can vary, randomly or regularly, along the length of element 62 to provide an unobstructed pathway having a varying dimension." Thus, "varying the width can be advantageous in varying the pitch along the length of element 62 installed or as it is installed in place," and the thickness of the spiral-shaped element "can be varied in regions having greater relative widths to control the pitch around such regions." The specification goes on to state, that "in accordance with one or more embodiments, the thickness can be varied in regions having greater relative widths to control the pitch around such regions." This language explicitly indicates that the spiral shaped element can include regions with differing pitch densities by altering its width or thickness.

Claim 29 describes a system wherein the spiral shaped element includes an aspect ratio of about 5-20. Support for this claim, found on page 12, lines 8-10 in the specification, reads that a "spiral shaped element may comprise a ribbon having an aspect ratio, defined as the width relative to thickness that is greater than about 5, greater than about 10, or even greater than about 20."

Support for claim 33 is found on page 11, line 16. The specification states, "element 66 can be *secured* by compression fit within the heating element 62." (emphasis added) The term "secured" in the claim language indicates that element 66, a spiral shaped element, is fixed within the heating element. Since the heating element 62 is formed within the heater tube 60, as discussed on page 8 lines 28-31 and shown in figure 3, a spiral element fixed relative to the heating element is also fixed relative to the heater tube. Therefore, the specification provides support for a spiral shaped element fixed relative to the heater tube.

Figures 4-5D provide support for claim 34. Figure 4 shows the spiral shaped element extending the length of the heater tube 60. Figures 5A – 5D show a cross sectional view of figure 4. These figures clearly show a spiral shaped element 66 winding around the interior wall of the heater tube 60 and outwardly of a central opening extending through the heater tube 60.

Support for claim 35 is found on page 8 lines 28-32. The specification states, "heater 60 comprises one or more shell-and-tube heat exchangers. In such an arrangement, the biomaterial stream typically runs through the tube-side and a heating medium, such as steam, or other process stream, typically runs through the shell side." In accordance with the claim, this language indicates that the outer shell defines a heating medium chamber between the shell and the inner heating tube wherein the heating element is heated by a heated medium, such as steam or other process stream, in the chamber.

Claim 36 describes a system wherein the spiral shaped element is fixed relative to the heater tube. As discussed above for claim 33, support for claim 36 is found on page 11, line 16.

The specification states, "the element 66 can be *secured* by compression fit within the heating element 62." (emphasis added) The term "secured" in the claim language indicates that element 66, a spiral shaped element, is fixed within the heating element. Since the heating element 62 is formed within the heater tube 60, as discussed on page 8 lines 28-31 and shown in figure 3, a spiral element fixed relative to the heating element is also fixed relative to the heater tube. Therefore, the specification provides support for a spiral shaped element fixed relative to the heater tube.

As discussed above for claim 34, claim 37 describes a system wherein the spiral shaped element winds around the interior wall of the heater tube and is disposed outwardly of a central opening that extends through the heater tube. Figures 4-5D provide support for claim 34. Figure 4 shows the spiral shaped element extending the length of the heater tube 60. Figures 5A – 5D show a cross sectional view of figure 4. These figures clearly show a spiral shaped element 66 winding around the interior wall of the heater tube 60 and outwardly of a central opening extending through the heater tube 60.

II. The §103 Rejection of Claims 31 and 32 is Improper

Claim 31 depends from claim 11 and specifically recites a grain steeping unit, a grinding unit, a germ separation unit, etc. Claim 32 also depends from claim 11 and sets forth a grain handling unit. a grain fermentation unit, a distillation unit, etc. The Patent Office in ¶ 14 of the Final Office Action rejected claims 31 and 32 over Welledits. In rejecting these claims the Patent Office states that these claims "disclose the additional presence of a variety of typical grain processing units, and absent a showing of unexpected results, it would have been obvious to one having ordinary skill in the art at the time of the invention to have incorporated the same as a matter of preference depending on the type and degree of grain processing design." That, it is respectfully urged, is not a proper obviousness rejection. A prima facie case of obviousness has not been made out. In order to make out a prima facie case of obviousness the Patent

Office must point to prior art showing these particular limitations recited in claims 31 and 32 and setting forth why it would be obvious to incorporate these elements into the Welledits reference. It is improper to base a §103 rejection of this type on the lack of a showing of unexpected results.

III. The §102 Rejections are Improper

Claims 11-14 are rejected under 35 U.S.C. §102 based on six different references. Final Office Action, ¶4. Each rejection appearing in ¶4 of the Final Office Action is virtually identical. There are numerous problems with this §102 rejection. First, the rejections do not comply with 37 CFR 1.04(c)(2). In rejecting claims for lack of novelty or obviousness, the Patent Office must cite the best references. When a reference shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practical. The Patent Office has failed to meet this provision in rejecting claims 11-14 under §102. The Patent Office has failed to proceed on a limitation-by-limitation basis in these claims, and particularly point out what part of these six references is being relied upon to show that each limitation is met. A review of each of the rejections reveals that it is difficult, if not impossible, to ascertain what part of these six references is being relied upon in what amounts to six separate §102 rejections. As pointed out above, the Patent Office has virtually repeated the same rejection in each of the six cases with the exception that occasionally the Patent Office will refer to a figure or a reference number in the reference. The problem, it is respectfully urged, is that each of the six §102 rejections is not sufficiently complete and thorough to enable Applicants to understand fully the Patent Office's position.

It does not appear that claim 14 has even been addressed. Claim 14 depends from claims 13 and states that the grain processing facility comprises at least one of grain handling, fermentation, distillation and dehydrating unit operations. It does not appear that in the rejection set forth in ¶ 4 of the Final Office Action that the Patent Office even addresses this claim.

Notwithstanding the above, these references do not show a heater tube that forms a heating element. The prior art might show a tube and might show that heat is directed into the tube to heat a material within the tube. However, that is not the same as utilizing a heater tube that forms a heating element. It is the tube itself that heats the material passing through the same, and not an independent source of heat such as might emanate from a heated air stream directed into a tube.

IV. The 35 U.S.C. §103 Rejection with Respect to Claims 28 and 29 are Improper

Claims 28 and 29 are rejected as being obvious over multiple references in ¶¶ 11, 12 and 13 of the Final Office Action. All three rejections are essentially identical. The Patent Office notes the differences between the claimed invention and what the prior art shows, and then states "such modification would have been well within the purview of a skilled artisan, and absent a showing of unexpected results, it would have been obvious to one or ordinary skill in the art at the time of the invention to have arrived at the same as a matter of preference in design." This can never make out a prima facie case of obviousness. It is improper for the Patent Office to simply conclude that the differences in the claimed invention and the prior art, absent a showing of unexpected results, are obvious as a matter of design. The Patent Office must go further. The Patent Office must present some evidence that proves obviousness. Mere cryptic and conclusionary statements of this type can never suffice.

For the foregoing reasons, it is respectfully urged that the rejection of the claims in this case is improper and the Patent Office is respectfully urged to withdraw the final rejection.

Respectfully submitted,
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